

REMARKS

Claims 1-5, 8-17, and 20-25, 27-34, 36-45, 49-52, 55-56, 60-64, and 67 are pending in the application. Claims 6-7, 18-20, 26, 35, 46-48, 53-54, 57-59, and 65-66 have been cancelled. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the remarks contained herein.

I. INTERVIEW SUMMARY

Applicants wish to thank the Examiner for the interview conducted on April 21, 2009. During the interview, the Examiner and Applicants' attorney discussed the outstanding rejection of the Claims under 35 U.S.C. § 102 with respect to independent Claim 1. The substance of that discussion is reflected in the remarks below.

II. REJECTIONS UNDER 35 U.S.C. §§ 102 AND 103

Claims 1-3, 5, 8, 11, 13-16, 20, 23, 30-33, 35, 36, 39, 41-43, 45, 50-52, 56, and 62-64 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,279,067 to Callway et al. Claims 4, 9, 10, 17, 21, 22, 27-29, 34, 37, 38, 44, and 61 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Callway et al. Claims 6, 12, 18, 24, 26, 35, 40, 46-49, 53-55, 57-60, and 65-67 stand rejected as being unpatentable over Callway et al. in view of U.S. Patent No. 7,058,741 to Iwata et al. Applicants respectfully traverse these rejections for at least the reasons set forth below.

Claims 6, 18, 26, 25, 46-48, 53-54, 57-59, and 65-66 have been cancelled thereby rendering the § 103(a) rejection against Claims 6, 18, 26, 25, 46-48, 53-54, 57-59, and 65-66 moot.

A. Independent Claim 1

Independent Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,279,067 to Callway et al.

1. Callway fails to teach or suggest a first request that initiates a transfer of control.

Independent Claim 1 recites a method that includes:

transmitting a first request from the second embedded device to the current controlling device, the first request indicative of the second embedded device requesting permission to transmit data on the communications link, the first request initiating the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link.

Emphasis Added. At a minimum, the Callway reference fails to disclose or suggest this feature.

In the rejection, the Examiner asserts that the operation of the video graphics system, depicted in Figure 2 of Callway, discloses the method as recited in independent Claim 1. Applicants respectfully disagree. Applicants respectfully submit that Callway, at a minimum, fails to teach or suggest “the first request initiating the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link.” Emphasis added.

Callway discloses detecting an interrupt request set among slave devices in a video graphics system. For example, if slave device 30 (i.e., the alleged second embedded device as asserted by the Examiner) wishes to set an interrupt, the slave device 30 asserts an interrupt request pin which results in each of the slave devices setting a shared interrupt request.

(Column 3, Lines 16-20). Callway further notes:

“[i]n order to determine if an interrupt request is pending by any one of the VIP slave devices, the VIP host 10 only needs to read the shared IRQ flag of one of the slave devices. This is because when any VIP slave device asserts an interrupt request, all of the VIP slave devices will set their shared IRQ flag. Thus, the VIP host 10 can continuously poll a single one of the VIP slave

devices to determine when an interrupt request is pending by any one of the VIP slave devices.

Emphasis Added; (Column 4, Lines 9-16). In other words, the slave device 30 merely performs a passive operation by setting an interrupt request pin and thereafter awaiting detection of the interrupt request and further processing by the VIP host 10. Thus, in order for the pending interrupt to be detected and addressed, the VIP host 10 (i.e., alleged current controlling device – not the alleged second embedded device) must initiate communication with the VIP slave devices by polling and reading one of the VIP slave devices. As such, the polling operation performed by the VIP host device 10 initiates the detection of a pending interrupt request – not the setting of the interrupt request pin 32 by the VIP slave device 30.

In contrast, in independent Claim 1, the second embedded device that wishes to transmit data over the communications link initiates the handoff itself by transmitting a request (e.g., a first request) to the currently controlling device. Therefore Applicants respectfully submit that Callway neither teaches nor even contemplates “the first request initiating the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link” as claimed by independent Claim 1.

For at least the reasons cited, Applicants respectfully submit that Callway fails to anticipate independent Claim 1. As such, Applicants respectfully request that the rejection of independent Claim 1 and its dependent claims be withdrawn.

2. Callway fails to teach or suggest a second embedded device receiving control of the handoff of permission to transmit on a communications link.

Independent Claim 1 recites a method that includes:

receiving, by the second embedded device from the current controlling device, permission to transmit on the communications link and control of the handoff of permission to transmit on the communications link based on the first request.

Emphasis Added. At a minimum, the Callway reference fails to disclose or suggest this feature.

Applicants respectfully submit that the Callway reference fails to teach or even suggest a method that includes a second embedded device receiving “control of [a] handoff of permission to transmit on [a] communications link based on [a] first request.” Callway merely describes the use of dedicated polling circuitry and an associated polling method that allows interrupts to be detected by an interrupt service routine without the need for dedicated pins. (Column 8, Lines 14-17). Once an interrupt request is detected and the asserting VIP slave device is identified, the VIP host device 10 (i.e., the alleged current controlling device) services the interrupt request set by the VIP slave device. As such, in Callway, the VIP host device 10 simply permits the interrupt requesting VIP slave device to interrupt the operation of the VIP host device 10. Callway is completely silent with regards to transferring control of permission to service interrupt requests from the VIP host device 10 (i.e., the alleged current controlling device) to one of the VIP slave devices (i.e., an alleged second embedded device). For at least the reasons cited, Applicants respectfully submit that Callway fails to anticipate independent Claim 1. As such, Applicants respectfully request that the rejection of independent Claim 1 and its dependent claims be withdrawn.

3. Callway fails to teach or suggest a new current controlling device operable to receive a second request.

Independent Claim 1 recites a method that includes:

receiving, by the second embedded device from the current controlling device, permission to transmit on the communications link and control of the handoff of permission to transmit on the communications link based on the first request,

wherein, after receiving permission from the current controlling device, the second embedded device is designated as a new current controlling device, the new current controlling device is operable to receive a second request for a handoff from another embedded device of the plurality of embedded devices and to decide whether to grant the second request.

Emphasis Added. At a minimum, the Callway reference fails to disclose or suggest this feature.

Applicants respectfully submit that the Callway reference fails to teach or even suggest a method that includes a second embedded device being designated as a new current controlling device where “the new current controlling device is operable to receive a second request for a handoff from another embedded device of the plurality of embedded devices and to decide whether to grant the second request.” As mentioned above, Callway merely describes the use of dedicated polling circuitry and an associated polling method that allows interrupts to be detected by an interrupt service routine without the need for dedicated pins. (Column 8, Lines 14-17). Once an interrupt request is detected and the interrupt requesting VIP slave device is identified, the VIP host device 10 (i.e., the alleged current controlling device) services the interrupt request set by the VIP slave device. As such, in Callway, the VIP host device 10 simply permits the interrupt requesting VIP slave device to interrupt the operation of the VIP host device 10. The interrupt requesting VIP slave device (i.e., the alleged second embedded device) does not receive control over servicing interrupt requests from other VIP slave devices within the system. For at least the reasons cited, Applicants respectfully submit that Callway fails to anticipate independent Claim 1. As such, Applicants respectfully request that the rejection of independent Claim 1 and its dependent claims be withdrawn.

B. Independent Claim 13

Independent Claim 13 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,279,067 to Callway et al.

1. Callway fails to teach or suggest a first request that initiates a transfer of control.

Independent Claim 13 recites a system that includes a link request pin electrically coupling a plurality of embedded devices where the second embedded device is operable to request permission to transmit data on the communications link based on the transmission a first request to the current controlling device via an activation of the link request pin. The first request initiates the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link.

Independent Claim 13 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 13 and its respective dependent claims be withdrawn as well.

2. Callway fails to teach or suggest a second embedded device receiving control of the handoff of permission to transmit on a communications link.

Independent Claim 13 recites a system that includes a second embedded device receiving, from a current controlling device, permission to transmit on a communications link and control of a handoff of permission to transmit on the communications link based on a first request. Independent Claim 13 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 13 and its respective dependent claims be withdrawn as well.

3. Callway fails to teach or suggest a new current controlling device operable to receive a second request.

Independent Claim 13 recites a system that includes a second embedded device that, after receiving permission from the current controlling device, is designated as a new current controlling device. The new current controlling device is operable to receive a second request for a handoff from another embedded device of a plurality of embedded devices and to decide whether to grant the second request. Independent Claim 13 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 13 and its respective dependent claims be withdrawn as well.

C. Independent Claim 25

Independent Claim 25 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,279,067 to Callway et al.

1. Callway fails to teach or suggest a first request that initiates a transfer of control.

Independent Claim 25 recites a method that includes transmitting a first link request signal from the second embedded device to the current controlling device. The first link request signal initiates the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link. Independent Claim 25 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 25 and its respective dependent claims be withdrawn as well.

2. Callway fails to teach or suggest a second embedded device receiving control of the handoff of permission to transmit on a communications link.

Independent Claim 25 recites a method that includes receiving, by a second embedded device from a current controlling device, permission to transmit on a communications link and control of a handoff of permission to transmit on the communications link based on a first link request signal. Independent Claim 25 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 25 and its respective dependent claims be withdrawn as well.

3. Callway fails to teach or suggest a new current controlling device operable to receive a second request.

Independent Claim 25 recites a method that includes, after receiving permission from the current controlling device, designating a second embedded device as a new current controlling device. The new current controlling device is operable to receive a second link request signal for a handoff from another embedded device of a plurality of embedded devices and to decide whether to grant the associated second link request. Independent Claim 25 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 25 and its respective dependent claims be withdrawn as well.

D. Independent Claim 30

Independent Claim 30 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,279,067 to Callway et al.

1. Callway fails to teach or suggest a first request that initiates a transfer of control.

Independent Claim 30 recites a system that includes second embedded processing means operable to request permission to transmit data on the communication means based on the transmission of a first request to the current controlling means. The first request initiates the handoff that transfers control from the current controlling means to the second embedded processing means to permit transmission on the communications means. Independent Claim 30 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 30 and its respective dependent claims be withdrawn as well.

2. Callway fails to teach or suggest a second embedded device receiving control of the handoff of permission to transmit on a communications link.

Independent Claim 30 recites a system that includes second embedded means receiving, from the current controlling means, permission to transmit on the communications means and control of the handoff of permission to transmit on the communication means based on the first request. Independent Claim 30 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 30 and its respective dependent claims be withdrawn as well.

3. Callway fails to teach or suggest a new current controlling device operable to receive a second request.

Independent Claim 30 recites a system that includes second embedded processing means, after receiving permission from current controlling means, being designated as new current controlling means for receiving a second request for a handoff from another embedded processing means of a plurality of embedded processing means and for deciding

whether to grant the second request. Independent Claim 30 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 30 and its respective dependent claims be withdrawn as well.

E. Independent Claim 41

Independent Claim 41 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,279,067 to Callway et al.

1. Callway fails to teach or suggest a first request that initiates a transfer of control.

Independent Claim 41 recites a method that includes receiving a first request at a current controlling device from a second embedded device. The first request initiates the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link. Independent Claim 41 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 41 and its respective dependent claims be withdrawn as well.

2. Callway fails to teach or suggest a second embedded device receiving control of the handoff of permission to transmit on a communications link.

Independent Claim 41 recites a method that includes transmitting, from a current controlling device to a second embedded device, permission to transmit on a communications link and control of a handoff of permission to transmit on the communications link based on a first request. Independent Claim 41 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 41 and its respective dependent claims be withdrawn as well.

3. Callway fails to teach or suggest a new current controlling device operable to receive a second request.

Independent Claim 41 recites a method that includes, after receiving permission from a current controlling device, designating a second embedded device as a new current controlling device. The new current controlling device is operable to receive a second request for a handoff from another embedded device of a plurality of embedded devices and to decide whether to grant the second request. Independent Claim 41 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 41 and its respective dependent claims be withdrawn as well.

F. Independent Claim 50

Independent Claim 50 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,279,067 to Callway et al.

1. Callway fails to teach or suggest a first request that initiates a transfer of control.

Independent Claim 50 recites a system that includes a second embedded device of a plurality of embedded devices that is operable to request permission to transmit data on the communications link based on the transmission of a first request to the current controlling device via an activation of the link request pin. The first request initiates the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link. Independent Claim 50 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 50 and its respective dependent claims be withdrawn as well.

2. Callway fails to teach or suggest a second embedded device receiving control of the handoff of permission to transmit on a communications link.

Independent Claim 50 recites a system that includes a second embedded device receiving, from a current controlling device, permission to transmit on a communications link and control of a handoff of permission to transmit on the communications link based on a first request. Independent Claim 50 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 50 and its respective dependent claims be withdrawn as well.

3. Callway fails to teach or suggest a new current controlling device operable to receive a second request.

Independent Claim 50 recites a system that includes a second embedded device that, after receiving permission from the current controlling device, is designated as a new current controlling device. The new current controlling device is operable to receive a second request for a handoff from another embedded device of a plurality of embedded devices and to decide whether to grant the second request. Independent Claim 50 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 50 and its respective dependent claims be withdrawn as well.

G. Independent Claim 56

Independent Claim 56 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,279,067 to Callway et al.

1. Callway fails to teach or suggest a first request that initiates a transfer of control.

Independent Claim 56 recites a method that includes receiving a first link request signal at a current controlling device from a second embedded device. The first link request signal initiates the handoff that transfers control from the current controlling device to the second embedded device to permit transmission on the communications link. Independent Claim 56 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 56 and its respective dependent claims be withdrawn as well.

2. Callway fails to teach or suggest a second embedded device receiving control of the handoff of permission to transmit on a communications link.

Independent Claim 56 recites a method that includes transferring, from a current controlling device to a second embedded device, permission to transmit on a communications link and control of a handoff of permission to transmit on the communications link. Independent Claim 56 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 56 and its respective dependent claims be withdrawn as well.

3. Callway fails to teach or suggest a new current controlling device operable to receive a second request.

Independent Claim 56 recites a method that includes, after receiving permission from a current controlling device, designating a second embedded device as a new current controlling device. The new current controlling device is operable to receive a second link request signal for a handoff from another embedded device of a plurality of embedded devices and to decide whether to grant to the associated second request. Independent Claim 56 has been amended to recite features similar to the features of independent Claim 1

discussed above. As such, Applicants respectfully request that the rejection of independent Claim 56 and its respective dependent claims be withdrawn as well.

H. Independent Claim 62

Independent Claim 62 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,279,067 to Callway et al.

1. Callway fails to teach or suggest a first request that initiates a transfer of control.

Independent Claim 62 recites a system that includes second embedded processing means operable to request permission to transmit data on the communication means based on the transmission of a first request to the current controlling means. The first request initiates the handoff that transfers control from a current controlling means to the second embedded processing means to permit transmission on the communications means. Independent Claim 62 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 62 and its respective dependent claims be withdrawn as well.

2. Callway fails to teach or suggest a second embedded device receiving control of the handoff of permission to transmit on a communications link.

Independent Claim 62 recites a system that includes second embedded means receiving from current controlling means permission to transmit on communications means and control of a handoff of permission to transmit on the communication means based on a first request. Independent Claim 62 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 62 and its respective dependent claims be withdrawn as well.

3. Callway fails to teach or suggest a new current controlling device operable to receive a second request.

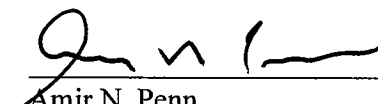
Independent Claim 62 recites a system that includes second embedded processing means that, after receiving permission from the current controlling means, are designated as new current controlling means for receiving a second request for a handoff from another embedded processing means of a plurality of embedded processing means and for deciding whether to grant the second request. Independent Claim 62 has been amended to recite features similar to the features of independent Claim 1 discussed above. As such, Applicants respectfully request that the rejection of independent Claim 62 and its respective dependent claims be withdrawn as well.

III. CONCLUSION

In view of the foregoing remarks, Applicants respectfully submit that the present application is in condition for allowance. Reconsideration is respectfully requested. If the Examiner has any questions, the Examiner is invited to contact the undersigned attorney at (312) 321-4200.

Respectfully submitted,

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Date


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